PG&E Corporation.

Nancy E. McFadden
Senior Vice President
Public Affairs

77 Beale Street, B32
San Francisco, CA 94105

415.973.7015
Fax: 415.973.6942
NEM5@pge.com

April 20, 2007

Mr. Winston Hickox
Chair, California Market Advisory Committee
California Environmental Protection Agency
1001 I Street
Sacramento, CA 95814

Re: Initial PG&E Comments on the Design of a Greenhouse Gas Market-Based Program for California

Dear Mr. Hickox:

Pacific Gas and Electric Company (PG&E) appreciated the opportunity to participate in the February 27, 2007 public meeting conducted by the Market Advisory Committee (MAC) regarding the design of a market-based program for achieving greenhouse gas (GHG) emission reductions in California. As a follow-up to that meeting, this letter provides PG&E's initial comments to the MAC on key market-design issues.

As you know, PG&E was one of the first companies in the nation to publicly express concern about global climate change and the need to reduce GHG emissions. This concern led PG&E to strongly support the California Legislature's groundbreaking efforts to address climate change in AB 32 and to encourage Governor Schwarzenegger to sign the bill. PG&E is committed to working with the MAC, the California Environmental Protection Agency (EPA), the California Air Resources Board (CARB), the California Public Utilities Commission (CPUC), other state agencies, and stakeholders to successfully implement AB 32.

PG&E was also one of the first companies in the nation to support federal legislation calling for mandatory GHG emission reductions. PG&E has consistently advocated the use of market-based programs as a key element of a GHG emission reduction program established by any level of government.

In the context of AB 32 implementation, PG&E developed the following set of principles to guide our policy development:

- Achieves AB 32's stated environmental goals and objectives;
- Minimizes costs to our customers;
- Recognizes investments our customers and the state have made, and will continue to make, in clean energy resources and energy efficiency;
- Provides for a broad range of cost-effective compliance options;
- Establishes a liquid and transparent trading system that includes linkage with other domestic and international markets;

- Provides for a reasonable degree of regulatory certainty to facilitate and encourage necessary investments in clean energy technologies;
- Encompasses provisions to manage unanticipated market impacts; and
- Serves as a model for federal legislative and regulatory efforts.

We believe that PG&E's guiding principles are consistent with those established by the MAC and that a market-based approach, which includes a cap-and-trade program, is the most effective way of achieving these objectives. A well-designed cap-and-trade approach can ensure that GHG emission reduction targets will be met while simultaneously generating a price signal resulting in market incentives that stimulate investment and innovation in the technologies, processes, and practices necessary to achieve AB 32's overall environmental goals.

Allowing market forces to direct capital investment to the least-cost control opportunities will minimize the overall cost of compliance. This approach allows companies to make their investment decisions based on the market price of carbon. If a company determines that it can reduce its emissions at a cost ($/ton) lower than the market price of carbon, then it will pursue the investment. On the other hand, if its pollution abatement costs are higher than the market price of carbon, the company would elect to seek additional, verified emission reductions from elsewhere in the market (avoiding the higher costs that it would otherwise have to incur to reduce its own emissions). This approach simulates investment, provides benefits to consumers, and helps manage costs while providing real contributions toward reducing GHG emissions.

In addition to the policy principles listed above, there are several key design elements that must be considered when establishing a cap-and-trade program to achieve greenhouse gas emission reductions. Each of these elements will significantly impact the effectiveness of the program, its overall costs to consumers, and its ability to serve as a model for federal legislative and regulatory action.

Fortunately, taking a cap-and-trade approach to reducing emissions is not new, and there are several existing and proposed examples for the MAC and state agencies, including CARB, CEC, and the CPUC, to review. These programs include the U.S. Acid Rain Program, the NOx Emission Reduction Program in the eastern U.S., the Regional Greenhouse Gas Initiative (RGGI) in the Northeast, and the European Union Emissions Trading System. These provide good examples for understanding key program design elements, alternatives available for addressing design issues, and, in some cases, lessons learned.

From PG&E's review of these and other cap-and-trade programs, the following elements are among those critical to ensuring the design of a well-functioning market under a cap-and-trade program:

- **Sector Contributions to Total Emissions and Availability and Costs of Technologies**: There must be a solid understanding of the emissions of the various sources and sectors and their relative contribution to the state's overall emissions: historically, currently, and going-forward. Taking a consistent approach to understanding historic, current, and projected emissions will account for GHG emission reductions that have already been and will be achieved within each sector, such as those associated with the electric industry's investments in energy efficiency, renewable resources, and similar measures. In addition to understanding the contribution that each sector and source within each sector makes toward the state's overall GHG footprint, it will also be important to have a solid understanding of the availability of low-, and non-carbon emitting technologies within each sector and the associated costs. Taken together, this information will help to inform the level of the emissions cap for each sector, reasonable emissions trajectories, and potential cost implications. Accurate data is also essential to ensure that a sufficient number of allowances are allocated to each sector and within each sector.

- **Apportionment of Reduction Obligations**: Statewide reduction obligations should be apportioned in a way that ensures no single sector or its customers are assuming a disproportionate share of reduction obligations. While emission reductions achieved may ultimately vary among sectors, the genesis of those reductions should be driven by the market seeking the most cost-effective reductions, as opposed to shifting obligations between sectors. If sector emission caps are not equitable, industries with overly stringent caps will face excessive compliance costs, while those with loose caps will be unduly advantaged.

- **A Clear Emission Reduction Trajectory**: Establishing a clear and feasible emission reduction trajectory that allows for regulated entities to understand their emission reduction obligations over the term of the program is critical to allowing entities to effectively manage compliance costs. The ultimate goal of AB 32 is for the state to achieve its 1990 emission levels by 2020. Creating a clear glide path that takes a gradual approach and recognizes the availability and costs of low- and non-GHG emitting technologies to meeting reductions will avoid requiring regulated entities from making jarring and potentially uneconomic decisions, while also providing for a longer term price signal to make appropriate investments.

- **Direct Allowance Allocation**: PG&E strongly supports allocation of allowances to customers, and is very concerned about the potential cost impacts to customers of initially auctioning a substantial portion of allowances. Under this approach, load serving entities (LSEs) would receive a direct allocation of allowances to manage on behalf of their

customers. The CPUC would oversee investor-owned utility management of the allowances.

An auction of all or a significant portion of allowances, no matter how well designed, will increase costs to customers with uncertain commensurate benefit. Some may argue that such an auction can provide a beneficial initial price signal, but this signal will diminish in importance over time as trading occurs. An auction that is not well designed could result in an inefficient allocation of allowances and may provide a misleading initial price signal, in addition to increasing costs to customers. If an auction is deemed to be necessary, then PG&E recommends that it be limited in quantity and that, in the electric sector, revenues generated through the auction be allocated to the LSEs under the supervision of the CPUC for the benefit of the LSE's customers.

In addition, allocations should recognize the investments the utility sector has made and will continue to make on behalf of its customers in clean energy resources and energy efficiency. For example, PG&E has chosen not to include high-emitting resources in its portfolio and should not be penalized in any allocation for this choice.

- **Robust Emission Trading Market**: Climate change is unlike any other air quality challenge we currently face. It does not matter from where GHGs are emitted, reduced, or sequestered, as GHGs mix uniformly in the atmosphere. A robust market can be assured by including as many industry sectors and participants as possible, with linkages to other existing and emerging domestic and international programs (i.e., RGGI, EU ETS, Canada, and, ultimately, a future national program).

- **Flexible Compliance Mechanisms**: Establishing multi-year flexible compliance mechanisms will allow regulated entities to better manage their emission reduction activities, while simultaneously providing a form of cost control. These flexible compliance mechanisms can include program elements like banking of emission allowances, borrowing of emissions allowances, and multi-year compliance periods rather than a traditional annual compliance true-up. This last element is critically important to the power sector, where weather and precipitation variability have a significant impact on year-to-year emissions. As an example, RGGI has selected a three-year compliance true-up period for its program.

- **Broad Carbon Offsets Provisions**: Credible carbon offsets should play a role in assisting entities to meet their reduction goals. The ability to use carbon offsets (e.g., verified GHG emission reductions or carbon sequestration activities from sources not included in the cap-and-trade program) provides increased compliance flexibility and

improves cost effectiveness. Offset projects can also provide other associated benefits, like reduction in criteria pollutants, enhanced biodiversity, and advancement of new technologies. Since climate change is truly a global issue, offsets should be allowed from a range of domestic sinks, domestic sources of emissions that are not subject to the cap, and projects outside the U.S. To ensure environmental integrity of the offsets and that the price of carbon is being adequately reflected, offsets allowed for use in a program must be environmentally additional, verifiable, permanent, and enforceable.

- **Accurate Information and Market Transparency**: Any market will function well only when it is transparent and supported by accurate and credible information on emissions, allowance prices, and supply that is available to all market participants and the general public. Standardized emissions monitoring and reporting requirements ensure that sources in the cap-and-trade program are monitoring and reporting emissions data consistently and accurately. Transparency and confidence in the forward prices and prospective supply are foundational to attracting sufficient investment in emissions reducing activities. Existing markets, such as the Acid Rain program, can be models for how emission monitoring and market transparency could be established in a California cap-and-trade program.

- **Cost Control Measures**: Cost control measures are policies designed to provide capped entities with greater confidence that their costs and those of their customers will be limited. The most powerful cost control measure is a robust cap-and-trade program, since markets do the best job of controlling costs over time. AB 32 provides for program adjustments if unanticipated and sustained market impacts should occur. Based on our state's experience with the energy crisis, we urge the MAC to evaluate and recommend specific evaluation criteria for assessing unanticipated price impacts, to ensure that if a sustained market dysfunction should occur, there is a pre-established protocol in place to trigger the adjustments. Any market adjustment or other cost-control options must ensure the integrity of the emissions cap over a multi-year period and preserve the market's effectiveness in driving reductions, investment, and innovation. Some additional cost control options include, but are not limited to, a cost safety valve and strategic allowance reserves. Criteria for triggering and revoking these additional cost control options should be established in advance of the program in order to prevent excessive compliance costs being borne by customers.

Finally, one of the most basic but often overlooked points in designing a cap-and-trade program was outlined in the MAC Market Design Guiding Principles: "Be simply designed, easily understood, easy to administer and easy to comply with." PG&E concurs vigorously with this statement. We recognize that a cap-and-trade program will not be the entire solution and that

traditional regulatory or command-and-control strategies will be required, and may even be more appropriate for some sectors. However, as the MAC provides recommendations as to how to design a market-based program, particularly for the electric sector, it is important to stress simplicity and predictability in order to facilitate good compliance planning and avoid unnecessary costs.

Thank you for the opportunity to submit these initial comments regarding the MAC's recommendations for the design of a market-based program for implementing AB 32. California has the opportunity to inform the national debate and show that greenhouse gas emission reductions can be reduced in a way that provides for economic opportunity, innovation, and technology advancement. PG&E looks forward to working with the MAC and to providing additional comments on specific market features as the MAC works to develop its recommendations.

PG&E is also committed to working with the MAC and others on assessing alternative structures and approaches to meeting AB32's reduction goal. If you have any questions, please contact me at (415) 973-7015 or John Busterud at (415) 973-6617.

Sincerely,

Nancy E. McFadden

NEM:kp

cc: Dr. Robert Sawyer
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Mike Schieble
Deputy Executive Officer
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Catherine Witherspoon
Executive Officer
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Linda Adams
Secretary, Cal EPA
1001 I Street
Sacramento, CA 95814

Dan Skopec
Undersecretary, Cal EPA
1001 I Street
Sacramento, CA 95814

Brian Prusnek
Deputy Cabinet Secretary
Governor's Office
State Capitol Building
Sacramento, CA 95814

Michael R. Peevey
President, CPUC
505 Van Ness Avenue
San Francisco, CA 94102

Eileen Tutt
Assistant Secretary, Cal EPA
1001 I Street
Sacramento, CA 95814